LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY
OFFICE OF ENVIRONMENTAL SERVICES

STATEMENT OF BASIS[1]

PROPOSED PART 70 OPERATING PERMIT NO. 881-V3

POLYVINYL CHLORIDE (PVC) PLANT
GEORGIA GULF CHEMICALS AND VINYLS, LLC
PLAQUEMINE, IBERVILLE PARISH, LOUISIANA
Agency Interest (AI) No. 2455
Activity No. PER20090005

I. APPLICANT

The applicant is:	Georgia Gulf Chemicals and Vinyls, LLC – Plaquemine Division P. O. Box 629 Plaquemine, LA 70765-0629
Facility:	Polyvinyl Chloride (PVC) Plant
SIC Code:	2821
Location:	26100 Highway 405 South Plaquemine, LA 70764

II. PERMITTING AUTHORITY

The permitting authority is: Louisiana Department of Environmental Quality
Office of Environmental Services
P.O. Box 4313
Baton Rouge, Louisiana 70821-4313

III. CONTACT INFORMATION

Additional information may be obtained from:

Mr. Kyle A. Prestenbach
P.O. Box 4313
Baton Rouge, Louisiana 70821-4313
Phone: (225) 219-3132

IV. FACILITY BACKGROUND AND CURRENT PERMIT STATUS

Georgia Gulf Chemicals and Vinyls, LLC (Georgia Gulf) owns and operates a polyvinyl chloride (PVC) plant in Plaquemine, Iberville Parish, Louisiana. The plant was built by Georgia Pacific in 1974. Georgia Gulf assumed operation of the PVC Plant in 1985.

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[1] 40 CFR 70.7(a)(5) and LAC 33:III.531.A.4 require the permitting authority to "provide a statement that sets forth the legal and factual basis for the proposed permit conditions of any permit issued to a Part 70 source, including references to the applicable statutory or regulatory provisions."

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The PVC Plant is presently operating under Permit No. 881-V2 issued on March 21, 2006.

This permit addresses all emission sources in the PVC Plant.

A number of Part 70 permits addressing other process units at the Georgia Gulf – Plaquemine Division have already been issued. These include:

Permit No.	Process Unit	Date Issued
1267-V1	Phenol Acetate Plant	4/23/2009
2030-V0	Caustic/Chlorine Unit	9/20/2005
2056-V0	Cogeneration Unit	8/08/2005
2224-V1	VCM Plant Incinerators	2/22/2006
2906-V2	EDC/VCM Plant	8/03/2007
2907-V1	Utilities/Wastewater Plant	2/20/2009

In addition, PSD Permit PSD-LA-592 for the Cogeneration Project was issued to the Georgia Gulf - Plaquemine Division on March 26, 1996.

V. PROPOSED PERMIT/PROJECT INFORMATION

A permit application and Emission Inventory Questionnaire, dated August 10, 2009, were submitted by Georgia Gulf Chemicals & Vinyls LLC requesting a Part 70 operating permit renewal and minor modification. The application was deemed administratively complete in accordance with LAC 33:III.519.A on August 11, 2009.

Additional information, dated November 19, 2009 and January 13, 2010, was also received.

Process Description

Georgia Gulf Chemicals and Vinyls, LLC (Georgia Gulf) produces polyvinyl chloride (PVC) resins by polymerizing vinyl chloride monomer (VCM) in batch reactors which convert a portion of the VCM charged in each batch to PVC. The completed batches are then pumped into blowdown tanks where unreacted VCM flashes overhead to be reclaimed by condensation. The blowdown tanks also serve as holding tanks for continuous feed of the slurry stripping columns.

Residual VCM is steam stripped from the PVC slurry in columns. All equipment, upstream of and including the slurry stripper, vents to the VCM recovery system which consists of vacuum pumps, compressors, and four stages of condensers using chilled water. Condensed

VCM is recycled to the process. Noncondensibles are routed to the VCM Plant incinerators.

In the drying area, PVC slurry is dewatered by centrifuges, dried by fluidized bed dryers, screened by sieves, and pneumatically conveyed to product silos. PVC product is then transferred to railroad hopper cars and trucks for shipment to customers.

Particulate emissions from the dryers are controlled by cyclones with at least 99.97% removal efficiency. Particulates from product day tanks and storage silos are controlled by cloth filters and baghouses with at least 99.98% removal efficiency.

Proposed Modifications

In this Part 70 Operating Permit, Georgia Gulf requested the following changes to its current PVC Plant Part 70 Operating Permit:

1. To renew its Part 70 air operating permit for the PVC Plant.
2. To update emissions, including the addition of several constituents, for the PVC Cooling Tower No. 1 (Emission Point No. (EPN) 11-99), the PVC Lamella System (EPN 12-99), and the PVC Cooling Tower No. 2 (EPN 6-05) to reflect the potentially volatile constituents and concentrations permitted for Outfall 402 in Georgia Gulf's Louisiana Pollutant Discharge Elimination System (LPDES) Permit (File No. LA0007129, Activity No. 20040003). Outfall 402 water is utility water that is used throughout the facility, including use as the cooling water for the PVC Plant cooling towers and the Lamella System.
3. To remove the Alternate Operating Scenarios (TEMPO ID Nos. SCN0001 and SCN0002) which allow Day Tanks 9 and 10 to operate in PVC service or centrate water service. Day Tanks 9 and 10 will only operate in PVC service.
4. To add two insignificant activities (PVC Loading and Filter Carryover).

In addition to the above changes, all references to and regulations pertaining to 40 CFR 63 Subpart J (National Emission Standards for Hazardous Air Pollutants for Polyvinyl Chloride and Copolymers Production) have been removed from the permit because this rule was vacated by the U.S. Court of Appeals on June 18, 2004, and the U. S. Environmental Protection Agency (EPA) has not yet developed a revised rule.

VI. ATTAINMENT STATUS OF PARISH

Pollutant	Attainment Status	Designation
$PM_{2.5}$	Attainment	N/A
PM_{10}	Attainment	N/A
SO_2	Attainment	N/A
NO_2	Attainment	N/A
CO	Attainment	N/A

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Pollutant	Attainment Status	Designation
Ozone[2]	Nonattainment	Severe
Lead	Attainment	N/A

VII. PERMITTED AIR EMISSIONS

Sources of air emissions are listed on the "Inventories" page of the proposed permit.

Estimated emissions of criteria pollutants from the facility, in tons per year (TPY), are as follows:

Pollutant	Before	After	Change
PM_{10}	54.80	55.59	+ 0.79
SO_2	-	-	-
NO_X	-	-	-
CO	-	-	-
VOC	49.15	49.70	+ 0.55

VOC compounds classified as LAC 33:III.Chapter 51-regulated toxic air pollutants (TAP) are speciated below. This list encompasses all Hazardous Air Pollutants (HAP) regulated pursuant to Section 112 of the Clean Air Act. Note, however, all TAPs are not HAPs (e.g., ammonia, hydrogen sulfide).

VOC LAC 33:III.Chapter 51 Toxic Air Pollutants (TAPs):

Pollutant	Before	After	Change
Chloroform	0.20	0.23	+ 0.03
Dibutyl Phthalate	NP	< 0.01	+ < 0.01
1,3-Dichloropropene	NP	0.03	+ 0.03
Hexachlorobutadiene	NP	0.02	+ 0.02
Methanol	12.95	12.95	-
Phenol	1.36	1.40	+ 0.04
1,2,4-Trichlorobenzene	NP	0.03	+ 0.03
1,1,2-Trichloroethane	NP	0.004	+ 0.004
Vinyl Chloride	10.73	10.87	+ 0.14
Total	25.24	25.54	+ 0.30

[2] VOC and NO_X are regulated as surrogates.

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Non-VOC LAC 33:III.Chapter 51 Toxic Air Pollutants (TAPs):

Pollutant	Before	After	Change
2,4-Dinitrophenol	NP	0.17	+ 0.17
Hexachlorobenzene	NP	0.03	+ 0.03
Total	-	0.20	+ 0.20

NP Not previously permitted.

The PVC Plant is part of the Georgia Gulf – Plaquemine Division which is a major source of criteria pollutants, a major source of HAPs, and a major source of TAPs.

Permitted limits for individual emissions units and groups of emissions units, if applicable, are set forth in the tables of the proposed permit entitled "Emission Rates for Criteria Pollutants" and "Emission Rates for TAP/HAP & Other Pollutants." These tables are part of the permit.

Emissions calculations can be found in Appendix B of the permit application. The calculations address the manufacturer's specifications, fuel composition (e.g., sulfur content), emissions factors, and other assumptions on which the emissions limitations are based and have been reviewed by the permit writer for accuracy.

General Condition XVII Activities

Very small emissions to the air resulting from routine operations that are predictable, expected, periodic, and quantifiable and that are submitted by the applicant and approved by the Air Permits Division are considered authorized discharges. These releases are not included in the permit totals because they are small and will have an insignificant impact on air quality. However, such emissions are considered when determining the facility's potential to emit for evaluation of applicable requirements. Approved General Condition XVII activities are noted in Section VIII of the proposed permit.

Insignificant Activities

The emissions units or activities listed in Section IX of the proposed permit have been classified as insignificant pursuant to LAC 33:III.501.B.5. By such listing, the LDEQ exempts these sources or types of sources from the requirement to obtain a permit under LAC 33:III.Chapter 5. However, such emissions are considered when determining the facility's potential to emit for evaluation of applicable requirements.

VIII. REGULATORY APPLICABILITY

Regulatory applicability is discussed in three sections of the proposed permit: Section X (Table 1), Section XI (Table 2), and Specific Requirements. Each is discussed in more detail below.

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Section X (Table 1): Applicable Louisiana and Federal Air Quality Requirements

Section X (Table 1) summarizes all applicable federal and state regulations. In the matrix, a "1" represents a regulation applies to the emissions unit. A "1" is also used if the emissions unit is exempt from the emissions standards or control requirements of the regulation, but monitoring, recordkeeping, and/or reporting requirements apply.

A "2" is used to note that the regulation has requirements that would apply to the emissions unit, but the unit is exempt from these requirements due to meeting a specific criterion, such as it has not been constructed, modified, or reconstructed since the regulation has been effective. If the specific criterion changes, the emissions unit will have to comply at a future date. Each "2" entry is explained in Section XI (Table 2).

A "3" signifies that the regulation applies to this general type of source (e.g., furnace, distillation column, boiler, fugitive emissions, etc.), but does not apply to the particular emissions unit. Each "3" entry is explained in Section XI (Table 2).

If blank, the regulation clearly does not apply to this type of emissions unit.

Section XI (Table 2): Explanation for Exemption Status or Non-Applicability of a Source

Section XI (Table 2) of the proposed permit provides explanation for either the exemption status or non-applicability of given federal or state regulation cited by 2 or 3 in the matrix presented in Section X (Table 1).

Specific Requirements

Applicable regulations, as well as any additional monitoring, recordkeeping, and reporting requirements necessary to demonstrate compliance with both the federal and state terms and conditions of the proposed permit, are provided in the "Specific Requirements" section. Any operating limitations (e.g., on hours of operation or throughput) are also set forth in this section. Associated with each Specific Requirement is a citation of the federal or state regulation upon which the authority to include that Specific Requirement is based.

1. Federal Regulations

40 CFR 60 – New Source Performance Standards (NSPS)

No NSPS provisions are applicable to the PVC Plant.

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40 CFR 61 – National Emission Standards for Hazardous Air Pollutants (NESHAP)

The following subparts are applicable at the PVC Plant: A, F, and V. Applicable emission standards, monitoring, test methods and procedures, recordkeeping, and reporting requirements are summarized in the "Specific Requirements" section of the proposed permit.

40 CFR 63 – Maximum Achievable Control Technology (MACT)

The following subparts are applicable at the PVC Plant: A and H. Applicable emission standards, monitoring, test methods and procedures, recordkeeping, and reporting requirements are summarized in the "Specific Requirements" section of the proposed permit.

Clean Air Act §112(g) or §112(j) – Case-By-Case MACT Determinations

A case-by-case MACT determination pursuant to §112(g) or §112(j) of the Clean Air Act was not required.

40 CFR 64 – Compliance Assurance Monitoring (CAM)

Per 40 CFR 64.2(a), CAM applies to each pollutant-specific emissions unit (PSEU) that 1) is subject to an emission limitation or standard, 2) uses a control devices to achieve compliance, and 3) has potential pre-control device emissions that are equal to or greater than 100 percent of the amount, in TPY, required for a source to be classified as a major source.

The PVC Plant is exempt from CAM requirements because emission sources are subject to NESHAP regulations published after November 15, 1990 (40 CFR 64.2(b)(1)(i)). Vinyl chloride emissions are subject to the PVC MACT (40 CFR 63 Subpart J), promulgated on July 12, 2002. Other potentially subject emission sources use inherent process equipment for product recovery and are not subject to CAM. Sources of PM emissions utilize baghouses and cyclones as product recovery devices which meet the definition of *inherent process equipment* as defined in 40 CFR 64.1; inherent process equipment is not considered a control device.

Acid Rain Program

The Acid Rain Program, 40 CFR Part 72 – 78, applies to the fossil fuel-fired combustion devices listed in Tables 1-3 of 40 CFR 73.10 and other utility units, unless a unit is determined not to be an affected unit pursuant to 40 CFR 72.6(b). LDEQ has incorporated the Acid Rain Program by reference at LAC 33:III.505. The PVC Plant is not subject to the Acid Rain Program.

2. SIP-Approved State Regulations

Applicable state regulations are also noted in Section X (Table 1) of the proposed permit. Some state regulations have been approved by the U.S. Environmental Protection Agency (EPA) as part of Louisiana's State Implementation Plan (SIP). These regulations are referred to as "SIP-approved" and are enforceable by both LDEQ and EPA. All LAC 33:III.501.C.6 citations are federally enforceable unless otherwise noted.

3. State-Only Regulations

Individual chapters or sections of LAC 33:III noted by an asterisk in Section X (Table 1) are designated "state-only" pursuant to 40 CFR 70.6(b)(2). Terms and conditions of the proposed permit citing these chapters or sections are not SIP-approved and are not subject to the requirements of 40 CFR Part 70. These terms and conditions are enforceable by LDEQ, but not EPA. All conditions not designated as "state-only" are presumed to be federally enforceable.

The PVC Plant is a major source of LAC 33:III.Chapter 51 regulated TAP. The owner or operator of any major source that emits or is permitted to emit a Class I or Class II TAP at a rate equal to or greater than the Minimum Emission Rate (MER) listed for that pollutant in LAC 33:III.5112 shall control emissions of that TAP to a degree that constitutes Maximum Achievable Control Technology (MACT), except that compliance with an applicable federal standard promulgated by the U.S. EPA in 40 CFR Part 63 shall constitute compliance with MACT for emissions of toxic air pollutants. Applicable Part 63 standards are addressed in Section VIII.1 of this Statement of Basis. MACT is not required for Class III TAPs; however, the impact of all TAP emissions must be below their respective Ambient Air Standards (AAS).

IX. NEW SOURCE REVIEW (NSR)

1. Prevention of Significant Deterioration (PSD)

The facility's source category is listed in Table A of the definition of "major stationary source" in LAC 33:III.509. As such, the PSD major source threshold is 100 TPY (of any regulated NSR pollutant).

The PVC Plant is part of the Georgia Gulf – Plaquemine Division which is a major stationary source under the PSD program, LAC 33:III.509. However, since there are no physical changes or changes in the method of operation associated with this permit modification, the PSD program does not apply to this permit action.

2. Nonattainment New Source Review (NNSR)

The PVC Plant is part of the Georgia Gulf – Plaquemine Division which is a major stationary source under the NNSR program, LAC 33:III.504. However, since there are no physical changes or changes in the method of operation associated with this permit

modification, the NNSR program does not apply to this permit action.

3. Notification of Federal Land Manager

The Federal Land Manager (FLM) is responsible for evaluating a facility's projected impact on the Air Quality Related Values (AQRV) (e.g., visibility, sulfur and nitrogen deposition, any special considerations concerning sensitive resources, etc.[3]) and recommending that LDEQ either approve or disapprove the facility's permit application based on anticipated impacts. The FLM also may suggest changes or conditions on a permit. However, LDEQ makes the final decision on permit issuance. The FLM also advises reviewing agencies and permit applicants about other FLM concerns, identifies AQRV and assessment parameters for permit applicants, and makes ambient monitoring recommendations.

If LDEQ receives a PSD or NNSR permit application for a facility that "may affect" a Class I area, the FLM charged with direct responsibility for managing these lands is notified.

The meaning of the term "may affect" is interpreted by EPA policy to include all major sources or major modifications which propose to locate within 100 kilometers (km) of a Class I area. However, if a major source proposing to locate at a distance greater than 100 km is of such size that LDEQ or the FLM is concerned about potential impacts on a Class I area, LDEQ can ask the applicant to perform an analysis of the source's potential emissions impacts on the Class I area. This is because certain meteorological conditions, or the quantity or type of air emissions from large sources located further than 100 km, may cause adverse impacts. In order to determine whether a source located further than 100 km may affect a Class I area, LDEQ uses the Q/d approach.

Q/d refers to the ratio of the sum of the net emissions increase (in tons) of PM_{10}, SO_2, NO_X, and H_2SO_4 to the distance (in kilometers) of the facility from the nearest boundary of the Class I area.

$$Q/d = \frac{PM_{10\,(NEI)} + SO_{2\,(NEI)} + NO_{X\,(NEI)} + H_2SO_{4\,(NEI)}}{\text{Class I km}}$$ [4]

Where:

$PM_{10\,(NEI)}$	=	net emissions increase of PM_{10}
$SO_{2\,(NEI)}$	=	net emissions increase of SO_2
$NO_{X\,(NEI)}$	=	net emissions increase of NO_X
$H_2SO_{4\,(NEI)}$	=	net emissions increase of H_2SO_4

[3] See http://www2.nature.nps.gov/air/Permits/ARIS/AQRV.cfm.

[4] If both NNSR and PSD review are required, the higher of the two "net emissions increase" values has been selected. The net emissions increase for NNSR and PSD purposes may be different due to differing contemporaneous periods. If the net emissions increase of any pollutant is negative, the value used in the equation has been set to zero. If the project did not trigger a netting analysis, LDEQ uses the project increase (see §504.A.3 (NNSR) and §509.A.4 (PSD)). In this case, the value will be less than the pollutant's significance level.

Class I km = distance to nearest Class I area (in kilometers)

If Q/d ≥ 4, LDEQ will formally notify the FLM in accordance with LAC 33:III.504.E.1 / LAC 33:III.509.P.1.

In this instance,

$$Q/d = \frac{0 + 0 + 0 + 0}{25} = 0$$

Therefore, LDEQ has determined that the proposed project will not adversely impact visibility in Breton National Wildlife Refuge, the nearest Class 1 area.

4. Reasonable Possibility

As previously mentioned, there are no physical changes or changes in the method of operation associated with this permit modification. As such, there are no project-related increases of PM/PM_{10}, SO_2, NO_X, CO, and VOC associated with the proposed permit modification. As such, there is no "reasonable possibility" that the proposed permit may result in a significant emissions increase.

X. ADDITIONAL MONITORING AND TESTING REQUIREMENTS

In addition to the monitoring and testing requirements set forth by applicable state and federal regulations (see Section VIII of this Statement of Basis), a number of "LAC 33:III.507.H.1.a" and/or "LAC 33:III.501.C.6" conditions may appear in the "Specific Requirements" section of the proposed permit. These conditions have been added where no applicable regulation exists or where an applicable regulation does not contain sufficient monitoring, recordkeeping, and/or reporting provisions to ensure compliance. LAC 33:III.507.H.1.a provisions, which may include recordkeeping requirements, are intended to fulfill Part 70 periodic monitoring obligations under 40 CFR 70.6(a)(3)(i)(B).

XI. OPERATIONAL FLEXIBILITY

Emissions Caps

An emissions cap is a permitting mechanism to limit allowable emissions of two or more emissions units below their collective potential to emit (PTE). The proposed permit contains an existing emissions cap (Emission Point No. (EPN) V-CAP, Cap - PVC Plant Emissions) which provides for operational flexibility on both average hourly and annual emissions of particulate matter (PM_{10}), volatile organic compounds (VOCs), chloroform, methanol, phenol, and vinyl chloride.

Compliance with the capped emission rates in EPN V-CAP shall be achieved by:
(1) Monitoring the Reactor Opening Losses (ROL) (EPN 19-80) in accordance with all

applicable requirements of 40 CFR 61 Subpart F (National Emission Standard for Vinyl Chloride). ROL will be determined as per the equation in 40 CFR 61.67(g)(5)(i); vinyl chloride concentrations in the reactor will be determined as per 40 CFR 61.67(g)(5)(i)(B).

(2) Monitoring the production of PVC resin and residual vinyl chloride monomer (RVCM) in accordance with 40 CFR 61 Subpart F . RVCM shall be determined by 40 CFR 61 Subpart F, Appendix B, Method 107. VCM emissions shall be determined by subtracting from the RVCM calculated by method 107 the RVCM amount retained in the final product sent off-site to the customer. The amount of VCM retained in the final product sent off-site to the customer shall be determined based on the results of the 1994 PVC Allocation Study; the results of this study shall be kept on-site and made available for inspection by DEQ personnel. VCM from fugitive emissions shall be determined per the LDAR program.

(3) Monitoring the fugitive emissions in accordance with the facility's LDAR program - 40 CFR 63 Subpart H (HON).

(4) Monitoring the dryer throughput for particulate matter - 10 micron (PM-10) emissions. PM-10 emissions from the dryers will be calculated as follows: PM-10 (lbs/hr) = (Feed rate of PVC to dryer (lbs/yr)) X (Control device efficiency (%)) X (Particulate matter distribution (%) as PM-10).

(5) VCM emissions from the PVC Research Facility (EIQ No. 1-82) shall be determined as follows: VCM (lb/yr) = (Number of batches per year) X (Total VCM used per batch (lb VCM/batch)) X (Percentage of unreacted VCM)

Georgia Gulf shall keep semi-annual records of the total calculated emissions of all regulated pollutants in EPN V-CAP. These records shall be made available for inspection by LDEQ personnel by August 15th for emissions from January 1st through June 30th, and by March 31st for emissions from July 1st through December 31st. These records shall be maintained for a period of five years.

Georgia Gulf shall report the total calculated emissions of all regulated pollutants included in EPN V-CAP to the Office of Environmental Compliance, Enforcement Division. This report shall be submitted on a calendar year basis. The March 31st report shall cover emissions from January 1st through December 31st for the preceding calendar year.

Alternative Operating Scenarios

LAC 33:III.507.G.5 allows the owner or operator to operate under any operating scenario incorporated in the permit. Any reasonably anticipated alternative operating scenarios may be identified by the owner or operator through a permit application and included in the permit. The current permit contains two existing alternative operating scenarios (TEMPO ID Nos. SCN0001 and SCN0002), but Georgia Gulf requested to remove the alternative operating scenarios in the proposed permit (Permit No. 881-V3) since they

will no longer be needed.

Streamlined Requirements

When applicable requirements overlap or conflict, the permitting authority may choose to include in the permit the requirement that is determined to be most stringent or protective as detailed in EPA's "White Paper Number 2 for Improved Implementation of the Part 70 Operating Permits Program" (March 5, 1996). The overall objective is to determine the set of permit terms and conditions that will assure compliance with all applicable requirements for an emissions unit or group of emissions units so as to eliminate redundant or conflicting requirements. The proposed permit does contain streamlined provisions.

Louisiana Consolidated Fugitive Emission Program (LCFEP)

The Georgia Gulf - PVC Plant complies with a streamlined equipment leak monitoring program.

Compliance with the streamlined program shall constitute compliance with each of the fugitive emission monitoring programs being streamlined. Fugitive emissions are subject to the requirements of 40 CFR 63 Subpart H, LAC 33:III.5109, LAC 33:III.2122, 40 CFR 61 Subpart F, and 40 CFR 61 Subpart V. Among these regulations, 40 CFR 63 Subpart H establishes the most stringent leak detection and repair standards. Therefore, fugitive emissions shall be monitored as required by this program.

Unit or Plant Site	Programs Being Streamlined	Stream Applicability	Overall Most Stringent Program
I-86A, PVC Plant Fugitive Emissions	40 CFR 63 Subpart H – HON*	≥ 5% VOHAP	40 CFR 63 Subpart H*
	LAC 33:III.5109 – Louisiana MACT Determination for Non-HON Sources	≥ 5% VOTAP	
	LAC 33:III.2122 – Fugitive Emission Control for Ozone Nonattainment Areas and Specified Parishes	≥ 10% VOC	
	40 CFR 61 Subpart F – National Emission Standard for Vinyl Chloride	≥ 10% VCM	
	40 CFR 61 Subpart V – NESHAP for Equipment Leaks (Fugitive Emission Sources)	≥ 10% VHAP	

* 40 CFR 63 Subpart H is not applicable to the PVC Plant. However, Georgia Gulf proposes to consolidate under 40 CFR 63 Subpart H to promote consistency of fugitive monitoring requirements across the facility.

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XII. PERMIT SHIELD

A permit shield, as described in 40 CFR 70.6(f) and LAC 33:III.507.I, provides an "enforcement shield" which protects the facility from enforcement action for violations of applicable federal requirements. It is intended to protect the facility from liability for violations if the permit does not accurately reflect an applicable federal or federally enforceable requirement.

The proposed permit does not establish a permit shield.

XIII. IMPACTS ON AMBIENT AIR

Emissions associated with the proposed permit were reviewed by the Air Quality Assessment Division to ensure compliance with the NAAQS and AAS. LDEQ did not require the applicant to model emissions.

XIV. COMPLIANCE HISTORY AND CONSENT DECREES

The Georgia Gulf PVC Plant's compliance history can be found in Section 15 of the permit application. It must be disclosed per LAC 33:III.517.E and 517.D.12, if applicable.

No federal or state actions have been issued since the existing permit for the PVC Plant was issued.

XV. REQUIREMENTS THAT HAVE BEEN SATISFIED

The following state and/or federal obligations have been satisfied and are therefore not included as Specific Requirements.

Source ID	Citation	Description
None		

XVI. OTHER REQUIREMENTS

Executive Order No. BJ 2008-7 directs all state agencies to administer their regulatory practices, programs, contracts, grants, and all other functions vested in them in a manner consistent with Louisiana's Comprehensive Master Plan for a Sustainable Coast and public interest to the maximum extent possible. If a proposed facility or modification is located in the Coastal Zone, LDEQ requires the applicant to document whether or not a Coastal Use Permit is required, and if so, whether it has been obtained. Coastal Use Permits are issued by the Coastal Management Division of the Louisiana Department of

Natural Resources (LDNR).

The facility is not located in the Coastal Zone; therefore, a Coastal Use Permit is not required.

XVII. PUBLIC NOTICE/PUBLIC PARTICIPATION

Written comments, written requests for a public hearing, or written requests for notification of the final decision regarding this permit action may be submitted to:

Ms. Soumaya Ghosn
LDEQ, Public Participation Group
P.O. Box 4313
Baton Rouge, Louisiana 70821-4313

Written comments and/or written requests must be received prior to the deadline specified in the public notice. If LDEQ finds a significant degree of public interest, a public hearing will be held. All comments will be considered prior to a final permit decision.

LDEQ will send notification of the final permit decision to the applicant and to each person who has submitted written comments or a written request for notification of the final decision.

The permit application, proposed permit, and this Statement of Basis are available for review at LDEQ, Public Records Center, Room 127, 602 North 5th Street, Baton Rouge, Louisiana. Viewing hours are from 8:00 a.m. to 4:30 p.m., Monday through Friday (except holidays). Additional copies may be viewed at the local library identified in the public notice. The available information can also be accessed electronically via LDEQ's Electronic Document Management System (EDMS) on LDEQ's public website, www.deq.louisiana.gov.

Inquiries or requests for additional information regarding this permit action should be directed to the contact identified on page 1 of this Statement of Basis.

Persons wishing to be included on the public notice mailing list or for other public participation-related questions should contact LDEQ's Public Participation Group at P.O. Box 4313, Baton Rouge, LA 70821-4313; by e-mail at maillistrequest@ldeq.org; or contact LDEQ's Customer Service Center at (225) 219-LDEQ (219-5337). Alternatively, individuals may elect to receive public notices via e-mail by subscribing to LDEQ's Public Notification List Service at http://www.doa.louisiana.gov/oes/listservpage/ldeq_pn_listserv.htm.

Permit public notices can be viewed at LDEQ's "Public Notices" webpage, http://www.deq.louisiana.gov/apps/pubNotice/default.asp. Electronic access to each proposed permit and Statement of Basis current on notice is also available on this page.

STATEMENT OF BASIS

POLYVINYL CHLORIDE (PVC) PLANT
GEORGIA GULF CHEMICALS AND VINYLS, LLC
PLAQUEMINE, IBERVILLE PARISH, LOUISIANA
Agency Interest (AI) No. 2455
Activity No. PER20090005
Proposed Permit No. 881-V3

General information related to public participation in permitting activities can be viewed at www.deq.louisiana.gov/portal/tabid/2198/Default.aspx.

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APPENDIX A - ACRONYMS

AAS	Ambient Air Standard (LAC 33:III.Chapter 51)
AP-42	EPA document number of the Compilation of Air Pollutant Emission Factors
BACT	Best Available Control Technology
BTU	British Thermal Units
CAA	Clean Air Act
CAAA	Clean Air Act Amendments
CAM	Compliance Assurance Monitoring, 40 CFR 64
CEMS	Continuous Emission Monitoring System
CMS	Continuous Monitoring System
CO	Carbon monoxide
COMS	Continuous Opacity Monitoring System
CFR	Code of Federal Regulations
EI	Emissions Inventory (LAC 33:III.919)
EPA	(United States) Environmental Protection Agency
EIQ	Emission Inventory Questionnaire
ERC	Emission Reduction Credit
FR	Federal Register or Fixed Roof
H_2S	Hydrogen sulfide
H_2SO_4	Sulfuric acid
HAP	Hazardous Air Pollutants
Hg	Mercury
HON	Hazardous Organic NESHAP
IBR	Incorporation by Reference
LAER	Lowest Achievable Emission Rate
LDEQ	Louisiana Department of Environmental Quality
M	Thousand
MM	Million
MACT	Maximum Achievable Control Technology
MEK	Methyl ethyl ketone
MIK	Methyl isobutyl ketone
MSDS	Material Safety Data Sheet
MTBE	Methyl tert-butyl ether
NAAQS	National Ambient Air Quality Standards
NAICS	North American Industrial Classification System (replacement to SICC)
NESHAP	National Emission Standards for Hazardous Air Pollutants
NMOC	Non-Methane Organic Compounds

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NOx	Nitrogen Oxides
NNSR	Nonattainment New Source Review
NSPS	New Source Performance Standards
NSR	New Source Review
OEA	LDEQ Office of Environmental Assessment
OEC	LDEQ Office of Environmental Compliance
OES	LDEQ Office of Environmental Services
PM	Particulate Matter
PM10	Particulate Matter less than 10 microns in nominal diameter
PM2.5	Particulate Matter less than 2.5 microns in nominal diameter
ppm	parts per million
ppmv	parts per million by volume
ppmw	parts per million by weight
PSD	Prevention of Significant Deterioration
PTE	Potential to Emit
RACT	Reasonably Available Control Technology
RBLC	RACT-BACT-LAER Clearinghouse
RMP	Risk Management Plan (40 CFR 68)
SICC	Standard Industrial Classification Code
SIP	State Implementation Plan
SO2	Sulfur Dioxide
SOCMI	Synthetic Organic Chemical Manufacturing Industry
TAP	Toxic Air Pollutants (LAC 33:III.Chapter 51)
TOC	Total Organic Compounds
TPY	Tons Per Year
TRS	Total Reduced Sulfur
TSP	Total Suspended Particulate
µg/m3	Micrograms per Cubic Meter
UTM	Universal Transverse Mercator
VOC	Volatile Organic Compound
VOL	Volatile Organic Liquid
VRU	Vapor Recovery Unit

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APPENDIX B – GLOSSARY

Best Available Control Technologies (BACT) – an emissions limitation (including a visible emission standard) based on the maximum degree of reduction for each pollutant subject to regulation under this Part (Part III) which would be emitted from any proposed major stationary source or major modification which the administrative authority, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such source or modification through application of production processes or available methods, systems, and techniques, including fuel cleaning or treatment or innovative fuel combustion techniques for control of such pollutant.

CAM - Compliance Assurance Monitoring – A federal air regulation under 40 CFR Part 64.

Carbon Monoxide (CO) – (Carbon monoxide) a colorless, odorless gas produced by incomplete combustion of any carbonaceous (gasoline, natural gas, coal, oil, etc.) material.

Cooling Tower – A cooling system used in industry to cool hot water (by partial evaporation) before reusing it as a coolant.

Continuous Emission Monitoring System (CEMS) – The total combined equipment and systems required to continuously determine air contaminants and diluent gas concentrations and/or mass emission rate of a source effluent.

Cyclone – A control device that uses centrifugal force to separate particulate matter from the carrier gas stream.

Federally Enforceable Specific Condition – A federally enforceable specific condition written to limit the potential to Emit (PTE) of a source that is permanent, quantifiable, and practically enforceable. In order to meet these requirements, the draft permit containing the federally enforceable specific condition must be placed on public notice and include the following conditions:

- A clear statement of the operational limitation or condition which limits the source's potential to emit;
- Recordkeeping requirements related to the operational limitation or condition;
- A requirement that these records be made available for inspection by LDEQ personnel;
- A requirement to report for the previous calendar year.

Grandfathered Status – those facilities that were under actual construction or operation as of June 19, 1969, the signature date of the original Clean Air Act. These facilities are not required to obtain a permit. Facilities that are subject to Part 70 (Title V) requirements lose grandfathered status and must apply for a permit.

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Lowest Achievable Emission Rate (LAER) – for any source, the more stringent rate of emissions based on the following:

a. the most stringent emissions limitation that is contained in the implementation plan of any state for such class or category of major stationary source, unless the owner or operator of the proposed stationary source demonstrates that such limitations are not achievable; or
b. the most stringent emissions limitation that is achieved in practice by such class or category of stationary source. This limitation, when applied to a modification, means the lowest achievable emissions rate for the new or modified emissions units within the stationary source. In no event shall the application of this term permit a proposed new or modified major stationary source to emit any pollutant in excess of the amount allowable under an applicable new source standard of performance.

NESHAP – National Emission Standards for Hazardous Air Pollutants – Air emission standards for specific types of facilities, as outlined in 40 CFR Parts 61 through 63.

Maximum Achievable Control Technology (MACT) – the maximum degree of reduction in emissions of each air pollutant subject to LAC 33:III.Chapter 51 (including a prohibition on such emissions, where achievable) that the administrative authority, upon review of submitted MACT compliance plans and other relevant information and taking into consideration the cost of achieving such emission reduction, as well as any non-air-quality health and environmental impacts and energy requirements, determines is achievable through application of measures, processes, methods, systems, or techniques.

NSPS – New Source Performance Standards – Air emission standards for specific types of facilities, as outlined in 40 CFR Part 60.

New Source Review (NSR) – a preconstruction review and permitting program applicable to new or modified major stationary sources of criteria air pollutants regulated under the Clean Air Act (CAA). NSR is required by Parts C ("Prevention of Significant Deterioration of Air Quality") and D ("Nonattainment New Source Review").

Nonattainment New Source Review (NNSR) – a New Source Review permitting program for major sources in geographic areas that do not meet the National Ambient Air Quality Standards (NAAQS) set forth at 40 CFR Part 50. NNSR is designed to ensure that emissions associated with new or modified sources will be regulated with the goal of improving ambient air quality.

Organic Compound – any compound of carbon and another element. Examples: methane (CH_4), ethane (C_2H_6), carbon disulfide (CS_2).

Part 70 Operating Permit – also referred to as a Title V permit, required for major sources as defined in 40 CFR 70 and LAC 33:III.507.

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PM_{10} – particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers as measured by the method in Title 40, Code of Federal Regulations, Part 50, Appendix J.

Potential to Emit (PTE) – the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design.

Prevention of Significant Deterioration (PSD) – a New Source Review permitting program for major sources in geographic areas that meet the National Ambient Air Quality Standards (NAAQS) at 40 CFR Part 50. PSD requirements are designed to ensure that the air quality in attainment areas will not degrade.

Selective Catalytic Reduction (SCR) – A non-combustion control technology that destroys NO_X by injecting a reducing agent (e.g., ammonia) into the flue gas that, in the presence of a catalyst (e.g., vanadium, titanium, or zeolite), converts NO_X into molecular nitrogen and water.

Sulfur Dioxide (SO_2) – An oxide of sulphur.

TAP – LDEQ acronym for toxic air pollutants regulated under LAC 33 Part III, Chapter 51, Tables 1 through 3.

"Top Down" Approach – An approach which requires use of the most stringent control technology found to be technically feasible and appropriate based on environmental, energy, economic, and cost impacts.

Title V permit – see Part 70 Operating Permit.

Volatile Organic Compound (VOC) – any organic compound which participates in atmospheric photochemical reactions; that is, any organic compound other than those which the Administrator of the U.S. Environmental Protection Agency designates as having negligible photochemical reactivity.